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2	BR S	L2	U	lug	USPAT	2000/08/23 17:22			0
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5	BR S			3 and 4	USPAT	2000/08/23 17:27			0
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12	BR S	L1 3	1		USPAT	2000/08/23 17:45			0
13	BR S	L1 4		"5281493" "5155660" "5090919" "4876677" "4694322" "4538168" "4443655" "4172272" "3711752"	USPAT	2000/08/23 17:48			0
14	IS &R	L1 5	10	(("5281493") or ("5155660") or ("5090919") or ("4876677") or ("4694322") or ("4538168") or ("4443655") or ("4172272") or ("3711752") or ("3648337")).PN.	USPAT	2000/08/23 17:48			0
15	BR S	L1 6	23 5	257/790-791.ccls.	USPAT	2000/08/23 17:53			0
16	BR S		15 5	257/790.ccls.	USPAT	2000/08/23 17:53			0
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18	BR S		18	17 and 18	USPAT	2000/08/23 17:53			0
19		0		"2535898"	EPO; Derwent	2000/08/23 18:39			0
20	BR S	L2 1	0		EPO; JPO	2000/08/23 18:41			0

DERWENT-ACC-NO: 1984-121701 DERWENT-WEEK: 198420

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TITLE: Power transistor module for rectifying equipment - has resin filled frame closed at bottom by metallised ceramic plate for heat dissipation

INVENTOR: BUNK, K; HETTMANN, H; LEUKEL, B

PATENT-ASSIGNEE: ASEA BROWN BOVERI A[ALLM], BBC BROWN BOVERI & CIE AG[BROV]

PRIORITY-DATA: 1982DE-3241508 (November 10, 1982)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	: PA	AGES	MAIN-IPC
DE 3241508 A	May 10, 1984	N/A	015	N/A	
DE 3241508 C	March 30, 1989	N/A	000	N/A	
FR 2535898 A	May 11, 1984	N/A	000	N/A	
JP 59099753 A	June 8, 1984	N/A	000	N/A	

## APPLICATION-DATA:

PUB-NO	APPL-DESC	RIPTOR	APPL-NO	APPL-DATE
DE 3241508A	N/A	1982	DE-3241508	November 10, 1982
JP59099753A	N/A	1982	JP-0209260	November 9, 1982

INT-CL\_(IPC): H01L023/52; H01L025/04

## ABSTRACTED-PUB-NO: DE 3241508A

BASIC-ABSTRACT: The transistor module includes one or more transistors and uses a plastics casing (1) open top and bottom, with horizontal flanges (2) at the bottom. These have holes (3,4) for mounting on a heat sink. A ceramic plate (5) is adhesively secured in a groove (8) all round the open bottom to form a chamber to hold the transistor (14). S The inside surface of the ceramic plate has metallised areas (6a,b,c) to which are secured the flanged bottoms (9,13) of the conductor strip (10,12) or the transistor (14). The outside surface has another metallised layer (7). Control connections between the transistor and the metallised zones which are shaped to match the structure of the circuit, are made internally, using wires. The whole device is protected mechanically and insulated by cast resin masses (15,16) which fill the interior.

## ABSTRACTED-PUB-NO: DE 3241508C

EQUIVALENT-ABSTRACTS: The power transistor module has a plastic housing and a ceramic base.

On the side of the ceramic base directed to the inside of the housing is a structured metallisation for soldering on of externally accessible connectors, power transistors and internal connections.

The metallisation is of larger area than the solder area of the component.

The underside of the ceramic plate (5) directed towards a cooling body is also provided with a metallisation (7).

Not only the metallisation on the upper side but also that on the underside of the ceramic plate consists of a metal foil fixedly attached without glue or solder to the ceramic plate. The plastic housing may be embodied as an upwardly open frame (1).

The ceramic plate (5) may be glued into a hollow running around the base of the frame.

ADVANTAGE - Minimises heat transfer resistance.

(7pp)

CHOSEN-DRAWING: Dwg.1/5

TITLE-TERMS:

POWER TRANSISTOR MODULE RECTIFY EQUIPMENT RESIN FILLED FRAME CLOSE BOTTOM METALLISE CERAMIC PLATE HEAT DISSIPATE

DERWENT-CLASS: U11 U14

EPI-CODES: U11-D03; U14-H03;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1984-090085